Formación de docentes para la inclusión digital desde el plan escuela 2.0: estudio de un caso.

Teachers training for digital inclusion from school 2.0 plan: case study.

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RESUMEN.
El desarrollo de las tecnologías de la información y la comunicación han supuesto dentro de la sociedad una revolución que ha ido marcando el devenir de la vida educativa de los individuos. Así, desde diferentes organismos públicos se han ido desde hace más de dos décadas, diseñando programas y estrategias que incorporen estas a los procesos de enseñanza y aprendizaje. Esta circunstancia ha puesto de manifiesto la necesidad de proporcionar a los docentes de todos los niveles educativos de una formación que les capacite para la inclusión de las tecnologías en su metodología de aula. En este artículo presentamos los resultados de una investigación realizada con docentes vinculados a las aulas específicas de los centros privados de la ciudad de Córdoba (España), dado que uno de los mayores problemas que ha generado el desarrollo tecnológico es la denominada brecha digital. A través de un estudio transversal, descriptivo no correlacional, se han planteado 6 interrogantes a través de los cuales determinaremos las necesidades, complejidades y visiones que sobre su formación tienen los docentes de estas aulas. El resultado más significativo indica que si bien han recibido formación tecnológica, consideran que no es suficiente ni se encuentra adaptada para la tipología de alumnado que tienen en sus clases.

PALABRAS CLAVE.
Tecnologías de la información y la comunicación, Formación, Docente, Competencia digital, Inclusión

ABSTRACT.
The development of information and communication technologies has supposed a revolution into the society which has gone on marking the progression of the educational life of individuals. Therefore, different public governments have been designing for more than two decades programs and strategies including them to the teaching and learning processes. This circumstance has put in evidence the need of providing the teachers with all educative levels of a training which qualifies them for the inclusion of technologies in their class

methodology. In this paper we present the results of a research carried out with teachers related to specific classes in private schools from Córdoba (Spain), due to the fact that one of the greatest problems that the technology development has produced is the so-called digital breach. By means of a transversal, no correlational descriptive study, we have formulated six questions through which we will determine the needs, complexities and views that the teachers of these classes have about their training. The most significant result indicates that even though they have received technology training, they think that this is not enough and that that training is not adapted to the type of students that they can find in their classes.

KEY WORDS.
Information and communication technology, Training, Teacher, Digital skills, Inclusion.

1. Introduction.

Up to today the information and communication technologies (ICT) have been gradually incorporated to the educational institutions, supported by various programs and plans which, from the central and autonomous governments, have been designed and implemented with better or worse luck (Garcia and Veytia, in press). The last project for the integration of ICT in schools has been the Avanza Plan, and within the Autonomous Community of Andalusia, it has been materialized in the so-called School Program ICT 2.0 which intended to launch the digital classrooms and to provide schools with the necessary infrastructure. But also to provide the professorship with the technological formation or training necessary for the implementation of the above mentioned program.

In all this process the figure of the teacher takes on special relevance provided that it is he who will really introduce the ICT in the classroom, so his formation and methodology in this area is extremely important. Thus, we will be able to rumble success both in the integration and in the adjustment of it, and even in the students. Nevertheless, there is an aspect which seems to have been forgotten since the formation which has been tried to promote is rather of a general nature, ignoring issues such as inclusion.

This research has been focused on this aspect, that is to say, on the context of e-inclusion, as it is crucial that the students with special educational needs may have the same formation in and with ICT as the rest of the educational and social community. Currently, the support or therapeutic pedagogy classrooms, as well as the specific ones, present lacks in this matter so that it is significant to determine which the actual situation of the users of these classrooms (teachers and students) is in order to be able to design strategies for ICT employment in an effective way, adapted to a real context

2. From inclusion to digital training.

Attention to diversity is a current challenge of the school and achieving that everybody has got the same possibilities of access to technological training and information should be one of the purposes of the inclusive school. From the perspective of attention to diversity, the equality of opportunities in education makes reference to the possibility of each person, -regardless of his individual, familiar or social circumstances-, to exercise his right, which is derived from the citizen's condition, to the access and permanency at all levels and

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modalities of the educational system in terms of quality, equality and equity, as well as being in a position to be able to achieve the benefits which are derived from public instruction (García and Cotrina, 2005; Chiner, Gómez-Puerta and Cardona-Moltó, 2017). Consequently, we can affirm that a school can only be diverse if this principle is developed and it is avoided production or generation of inequality situations such as the digital breach, which according to Cabero (2004) is a direct consequence of the socioeconomic fracture existing among countries, regions, institutions and individuals. Thus, we can find that within a country this can take place between different groups, finding in turn collectives which are deprived of these possibilities that technologies offer, since they do not have access to them.

ICT must be contemplated as a generating element of benefits, spaces and positive situations, such as the sustainable development, health improvement, education, inclusion, and so on (Cabero and Cordoba, 2009). This will depend on the usage made of them taking always into account the difficulties and inequalities of access. The benefits that ICT can bring are many and, among them, it is necessary to emphasize that a great majority favor the progress of personality and self-esteem, a very important scope for the development of all the students. Furthermore, the limitations related to technologies within the field of inclusion, being the most important ones in our opinion the software and hardware adjustments and having the sufficient resources (conventional or specific).

We have to be aware that in the economic turmoil times we are living nowadays, not all the individuals have the same access to computers or Internet connections at home. Therefore, we must consider that it is essential that they can access to these tools at school and so all the students can develop competences and technological skills which are today almost indispensable to possess.

In short, as Naughty and Planella state (2008), digital literacy seems to become the element which can facilitate the educational and social inclusion, providing that the conditions of support/coaching exist (Prensky, 2010), which enable the inclusion of people experiencing or at risk of social exclusion to training, to the labor market or to the next community activity. If appropriate measures are not taken, in a not too distant future, the e-exclusion can become one of the largest generators of social exclusion. At this point, we should note that we consider the teachers' training to be the cornerstone enhancing that such a situation will not happen either will be reduced.

The structuring of training actions for incorporating technology in the classroom is widening. However, this is, in many cases, based on the voluntariness of teachers to further enhance what is now called "Curriculum 2.0" (Conole and Alevizan, 2010), along with the new role that the teacher performs, as counselor and guide. The digital or technological training of teachers will result in an improvement in the quality of education, will enhance the increased motivation for the content and the process of learning, will increase creativity, will make the educational activity more flexible and will pose new challenges to teachers facing the construction of an active and participative classroom methodology, supported by technological resources.

The plans and actions implemented have contemplated training spaces where the teacher could drink to continue with his recycling. However, we should ask ourselves: To what extent has such training resulted in the reality of the classrooms? Have the participating teachers managed to transfer their training to their daily exercise? Have all the training challenges undertaken by the different plans been effective? It is in these questions where a moment of reflection and analysis should be produced, being here where we have stopped.

3. Method.

Having into account what we have mentioned before, the only objective of this research is to determine the degree of implementation of School 2.0 Program within the specific classrooms in the direct-grant private schools from Cordova. From this aim different questions may arise to which we have to answer:

- Has School 2.0 Program been really implemented?
- Which has been its degree of implementation?
- Has it arisen teacher training?
- Has that training been covered?
- Has it been adapted to all the students' characteristics?

The answers to all of them will be based on the attitudes and opinions of the teachers who have participated, answering the scale with which we have analyzed the implementation of school 2.0 Program in the direct-grant private schools from Cordova, from the perspective of the specific classrooms teachers in these centers. Thus, we establish the different variables, which are sized down in seven aspects: Training in New Technologies and in School 2.0 Program; Usage of School 2.0 Program and its applications; Knowledge about School 2.0 Program; Compliance of the objectives of School 2.0 Program and of its adaptation to the students' characteristics; ICT Adaptation to the students' characteristics and, finally, Training, usage and knowledge about specific programs.

The design used in our research is cross-sectional, descriptive and non-correlational. This has been applied to grant-direct private schools from the city of Cordova with specific classrooms. We have found seven centers in total, so it is necessary for our sample to be representative that a minimum of four centers participated in this research. Finally five of them participated. The sample was non-probabilistic and intentional, with a sample of five female teachers in specific classrooms belonging to such centers. They are only women because the teachers in grant-direct private schools from Cordova are only females. The average age of the sample is 45, being 35 the minimum and 56 the maximum age. It could be indicated the existence of a bias in the population as regards the genre, but as Gialamas, Nikiolopoulu and Koutromanos (2013) and Cheng and Chang (2006) indicate, the Pre-primary and Primary Education studies are grades with an eminently feminized profile, affecting this variable in a global way. This is why we consider the non-existence of such a bias in our sample.

In order to obtain the necessary information to carry out this research we have decided to copy the questionnaire used by Romero de Llanos in 2011 in the Extremadura Community. This was built using a Likert scale where 1 corresponded to 'nothing' and 6 to 'too much'.

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The instrument has the following structure: a) Identification data: 2 items describing the independent variables (sex, age); b) Consisting of 38 items describing the dependent variables, being structured around the six groups or dimensions mentioned above.

In order to obtain the reliability of the instrument, we have performed the Cronbach Alpha test, by means of the SPSS 20.0 program for Windows getting a value of 0.971, which according to Matthew (2004) has a very high reliability. Likewise, we have also made the alpha test to the different dimensions in which the instrument is divided (see Table 1), thus enhancing the reliability of the instrument, as it provides us with acceptable values for each dimension.

Despite this, as we can see in the second dimension the alpha is very low and those items may present lacks in the global valuation. However, the rest of the dimensions have got a very high alpha, so it can be understood that the use of ICT in these classrooms is minimal.

Table 1: Reliability by dimensions.

Dimension	Cronbach Alpha
Training on New Technologies and on School 2.0 Program	0.813
Usage of School 2.0 Program and its applications	0.590
Knowledge about School 2.0 Program and its applications	0.750
Compliance of the objectives of School 2.0 Program and of its adaptation to the students' characteristics	0.936
ICT Adaptation to the students' characteristics	0.899
Training. usage and knowledge about specific programs	0.980

With the purpose of obtaining a reliability analysis of the instrument in a more detailed way, we have proceeded to take the homogenization coefficient revised for each item and the Alpha coefficient in the case that the item was eliminated, as it is shown in the following table (see Table 2).

Table 2: Analysis of the internal consistency (Cronbach Alpha item by item).

	Cronbach Alpha if the item is eliminated
Item 3	0.971
Item 4	0.971
Item 5	0.971
Item 6	0.970
Item 7	0.970
Item 8	0.970
Item 9	0.972
Item 10	0.971
Item 11	0.979
Item 12	0.971

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	Cronbach Alpha if the item is eliminated
Item 13	0.972
Item 14	0.972
Item 15	0.972
Item 16	0.972
Item 17	0.972
Item 18	0.972
Item 19	0.974
Item 20	0.972
Item 21	0.971
Item 22	0.973
Item 23	0.972
Item 24	0.970
Item 25	0.971
Item 26	0.971
Item 27	0.971
Item 28	0.970
Item 29	0.970
Item 30	0.971
Item 31	0.972
Item 32	0.970
Item 33	0.970
Item 34	0.970
Item 35	0.970
Item 36	0.970
Item 37	0.970
Item 38	0.971
Item 39	0.971
Item 40	0.971

As we can observe the instrument has got reliability, since each of the questionnaire items reveals alpha coefficients above 0.969.

4. Results.

We begin this section by presenting the results obtained in the descriptive study, which will allow us to discover the characteristics of teachers who participated in the research, calculating the average and standard deviation of the dependent variables and of the age, percentage and frequency of the teachers' sex participating in the research. Secondly, we proceeded to establish the relations between the dependent variables, for which the correlation index "r" by Pearson was used.

4.1 Descriptive study.

The descriptive analysis of the dependent variables was made from the dimensions cited above, in which the instrument used for research is divided.

In the dimension referring to the teachers' training in new technologies and in the School 2.0 program, it is checked how the sample believes that the degree in which they have received training on methodological aspects of ICT ($\bar{x}$= 4.00), the level of training on didactic aspects of ICT ($\bar{x}$= 4.20), the level of training on social aspects of ICT ($\bar{x}$= 4.20) and the extent to which they have taken in-person courses by the Ministry of Education on ICT ($\bar{x}$= 4.00), has been raised.

We can also appreciate that they regard as sufficient the degree to which they have been trained on the technical aspects of Information and Communication Technologies (ICT) ($\bar{x}$= 3.60), the extent to which they have been trained on the digital materials of specific educational character ($\bar{x}$= 3.00) and the extent to which they have taken online courses by the Ministry of Education on ICT ($\bar{x}$= 3.00).

Furthermore, the sample consider to have received little initial training for the implementation of School Program 2.0 ($\bar{x}$= 2.40) and little continuous training of support and improvement of the School Program 2.0 implementation ($\bar{x}$= 2.20).

With respect to the dimension referring to the usage of School 2.0 program and its applications, we observe that the teachers involved in the research believe that they rather use the Internet connection in their sessions ($\bar{x}$= 4.20), the educational software ($\bar{x}$= 4.40) and the extent to which they use ICT continuously ($\bar{x}$= 4.40). However, they note that they do not use the whiteboard ($\bar{x}$= 1.00) and consider that they have sufficiently integrated ICT in their daily teaching practice ($\bar{x}$= 3.80). They also believe that their students work enough individually and in group from hardware devices ($\bar{x}$= 3.00).

As regards the dimension about the knowledge of School 2.0 program and its applications we find that the teachers consider the extent to which they know how to use the whiteboard and the projector ($\bar{x}$= 3.00), together with the extent to which they know how the digital contents (software) of their curriculum subject ($\bar{x}$= 3.00), are sufficient.

On the one hand, in the dimension referred to the compliance of the objectives of the School 2.0 program and its adaptation to the students' characteristics, they consider enough the extent to which this program deals with the information and digital competence, involves the development of an autonomous, efficient, responsible, critical and thoughtful person ($\bar{x}$ = 4.60) and the extent to which educational software is adapted to the needs of their students ($\bar{x}$= 4.00). On the other hand, they argue that there is little extent to which the School 2.0 program has encouraged the teachers participation in digital, free, reusable and standardized workgroups for the different areas of knowledge ($\bar{x}$= 2.67). The degree to which the School 2.0 program generates and facilitates access to educational digital materials adapted to the curricula and to the teachers, students and families ($\bar{x}$= 3.00), together with the degree to which the School 2.0 program seeks quality and equity in the nineteenth century education ($\bar{x}$= 3.25) are considered enough by the teachers participating in the research. Regarding the dimension related to the adaptation of ICT to the students' characteristics, the participant teachers consider sufficient the specific technological means

that are helpful and beneficial for the subjects they work with ($\bar{x}$= 3.40). Also, they indicate sufficient the technological means that the center has to help to overcome the limitations that the cognitive, sensory and motored deficits of the subjects ($\bar{x}$= 3.80) present. They are also enough the technological resources that the center possesses, which allow to increase the volume in order to overcome the hearing loss of certain students ($\bar{x}$= 3.20). The extent to which the center has hardware and software adaptations for students with cognitive impairments ($\bar{x}$= 3.60) and the Internet accessibility on the part of their students due to the poor adaptation of Webs sites ($\bar{x}$= 3, 00) are considered sufficient. In contrast, they say to count on few equipments and technological programs with keyboard specific for students with visual impairment and for those with mobility impairments ($\bar{x}$= 2.50).

The last dimension makes reference to the training, usage and knowledge about specific resources. Here we can observe that the training on social networks "Good Practices 2.0" ($\bar{x}$= 2.60) and "Internet in the classroom" ($\bar{x}$= 2.80) that they have is scarce and they feel that they have no training on the resources that the project AGREGA offers ($\bar{x}$= 1.80). They hardly use the social networks "Good Practices 2.0" ($\bar{x}$= 2.40) and "Internet in the classroom" ($\bar{x}$= 2.60). We also discover how they do not use the resources of the project AGREGA ($\bar{x}$= 1.60). Finally, the level of knowledge that they have about "Good Practices 2.0" ($\bar{x}$= 2.60), according to the teachers, is scarce. About "Internet in the classroom" ($\bar{x}$= 3.00) they think it is enough and believe they have no knowledge about the educational resources of the project AGREGA ($\bar{x}$= 1.80).

4.2 Relationship between the different dimensions (correlation index "r" by Pearson).
4.2.1 Bivaried correlation among the dimensions A and B.

As we can appreciate in Table 3 below, when contrasting the variables of the dimension "Training on New Technologies and on School 2.0 program" with the variables of the dimension "Usage School 2.0 program and its applications", we can observe the relationship between some of their variables.

Teachers who have received more training on the technical aspects of ICT, has further integrated them into their daily teaching practice (R = 0.919 and P = 0.028) (see Table 3).

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Table 3: Results of bivaried correlations among the dimensions "Usage of School 2.0 Program and its applications" and "Training on New Technologies and on School 2.0 Program".

		USAGE OF SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS						
		To which extent you have integrated ICT in your daily teaching practice	To which extent you use the whiteboard in your classes	Degree in which your students work individually from hardware devices	Degree in which your students work in groups from hardware devices	In which do you use Internet connection in your sessions?	Degree in which you use educational software with your students	Degree in which you use ICT continuously
Degree in which you have received training on technical aspects of Information and Communication Technologies (ICT)	R	0,919*	.a	0,707	0,707	-0,200	-0,049	-0,06
	P	0,028	.	0,182	0,182	0,747	0,938	0,920
Level of training on the methodological aspects of the ICT	R	0,645	.a	0,224	0,224	0,423	0,310	0,395
	P	0,239	.	0,718	0,718	0,478	0,612	0,510
Level of training on didactic aspects of ICT	R	0,873	.a	0,567	0,567	0,286	0,419	0,535
	P	0,053	.	0,319	0,319	0,641	0,482	0,353
Level of training on social aspects of ICT	R	0,667	.a	0,289	0,289	0,218	0,120	0,153
	P	0,219	.	0,638	0,638	0,724	0,847	0,806
To what extent have you received initial training for the implementation of School 2.0 program?	R	0,327	.a	-0,094	-0,094	0,286	0,157	0,033
	P	0,591	.	0,880	0,880	0,641	0,801	0,957
Degree in which you have received continuous training of support and improvement on the School 2.0 program implementation	R	0,210	.a	-0,243	-0,243	0,413	0,269	0,129
	P	0,735	.	0,694	0,694	0,490	0,662	0,837
Degree in which you have received training on digital materials of specific educational character	R	0,645	.a	0,447	0,447	-0,423	<0,001	-0,395
	P	0,239	.	0,450	0,450	0,478	1,000	0,510
Degree in which you have taken online courses by the Ministry of Education on ICT	R	0,645	.a	0,224	0,224	0,423	0,310	0,395
	P	0,239	.	0,718	0,718	0,478	0,612	0,510
Degree in which you have taken in-person courses by the Ministry of Education on the ICT	R	-0,152	.a	-0,264	-0,264	0,697	<0,001	0,559
	P	0,807	.	0,668	0,668	0,191	1,000	0,327

(Left vertical label: TRAINING ON NEW TECHNOLOGIES AND ON SCHOOL 2.0 PROGRAM)

R: is the coefficient r by Pearson.

P: is Meaningfulness.

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4.2.2 Bivaried correlation among the dimensions A and F.

When contrasting the variables of the dimension "Training on New Technologies and on School 2.0 program" with the variables of the dimension "Training, usage and knowledge about specific programs", we observe how there are linear relationships between the variables of such dimensions, as we can appreciate it in the table 4.

Teachers who possess a higher level of training on the social network "Good Practices 2.0", have received continuous training of support and improvement on School 2.0 program implementation (R=0.910 and P=0.032). We have obtained the same result in the knowledge and training area, (R=0.910 and P=0.032).

However, teachers using to a greater extent the social network "Good Practices 2.0" have received continuous training of support and improvement on the School 2.0 program implementation (R=0.944 and P=0.016) and that training has also been higher at the initial level facing the School 2.0 program implementation (R=0.935 and P=0.020). Moreover, those who have a higher level of training on the social network "Internet in the classroom", have received more initial training for the School 2.0 Program implementation (R=0.992 and P=0.001) and have also had access to a higher continuous training of support and improvement on the School 2.0 programs application (R=0.991 and P=0.001).

Regarding the teachers who have made more use of the social network "Internet in the classroom", we observe how they have a higher training level on the social aspects of ICT (R=0.924 and P=0.025), initial training for School 2.0 program implementation (R=0.994 and P=0.001) and a greater continuous training of support and improvement on the School 2.0 program implementation (R=0.962 and P=0.009). The teachers who better know the social network "Internet in the classroom", have received initial training for the implementation of School 2.0 Program (R=0.986 and P=0.002), a higher continuous training of support and improvement on the implementation of School 2.0 programs (R=0.994 and P=0.001).

Teachers who have a higher level of training on educational resources of AGREGA project have received a greater continuous training of support and improvement on the implementation of School 2.0 programs (R=0.091 and P=0.032). Teachers using more the educational resources of AGREGA project have received initial training for the implementation of the School 2.0 Program (R=0.969 P=0.007) and continuous training of support and improvement on the implementation School 2.0 programs (R=0.943 and P=0.016). And finally, teachers who have a higher level of knowledge about educational resources of AGREGA project, have received more continuous training of support and improvement on School 2.0 programs implementation (R=0.910 and P=0.032), (see table 4).

Table 4: Results of the bivaried correlations among "Knowledge about the School 2.0 program and its applications" and the "Training, usage and knowledge about specific programs"
Source: Own production.

		KNOWLEDGE ABOUT SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS								
		Degree in which you have received training on technical aspects of Information and Communication Technologies (ICT)	Level of training on the methodological aspects of the ICT	Level of training on didactic aspects of ICT	Level of training on social aspects of ICT	To what extent have you received initial training on the School 2.0 program implementation?	Degree in which you have received continuous training of support and improvement on the School 2.0 program implementation	Degree in which you have received training on digital materials of specific educational character	Degree in which you have taken online courses by the Ministry of Education on ICT	Degree in which you have taken in-person courses by the Ministry of Education on the ICT
Level of training on the social network "Good Practices 2.0"	R	0.408	0.645	0.327	0.667	0.873	0.910*	0.645	0.645	-0.152
	P	0.495	0.239	0.591	0.219	0.053	0.032	0.239	0.239	0.807
Level of usage of the social network "Good Practices 2.0"	R	0.545	0.725	0.399	0.773	0.935*	.0944*	0.725	0.725	-0.128
	P	0.342	0.165	0.506	0.126	0.020	0.016	0.165	0.165	0.837
Level of knowledge of the social network "Good Practices 2.0"	R	0.408	0.645	0.327	0.667	0.873	0.910*	0.645	0.645	-0.152
	P	0.495	0.239	0.591	0.219	0.053	0.032	0.239	0.239	0.807
Level of training on the social network "Internet in	R	0.593	0.815	0.441	0.863	0.992**	0.991**	0.652	0.815	0.077
	P	0.292	0.093	0.457	0.059	0.001	0.001	0.233	0.093	0.902

Left axis label: TRAINING. USAGE AND KNOWLEDGE ABOUT SPECIFIC PROGRAMS

the classroom"										
Level of usage of the social network "Internet in the classroom"	R	0.701	0.852	0.490	0.924*	0.994**	0.962**	0.682	0.852	0.121
	P	0.187	0.066	0.402	0.025	0.001	0.009	0.205	0.066	0.847
Level of knowledge of the social network "Internet in the classroom"	R	0.527	0.833	0.423	0.861	0.986**	0.994**	0.500	0.833	0.275
	P	0.361	0.080	0.478	0.061	0.002	0.001	0.391	0.080	0.654
Level of training on educational resources of the AGREGA project	R	0.408	0.645	0.327	0.667	0.873	0.910*	0.645	0.645	-0.152
	P	0.495	0.239	0.591	0.219	0.053	0.032	0.239	0.239	0.807
Level of knowledge of educational resources of the AGREGA project	R	0.688	0.791	0.468	0.868	0.969**	0.943*	0.791	0.791	-0.093
	P	0.200	0.111	0.427	0.057	0.007	0.016	0.111	0.111	0.882
Level of usage of educational resources of the AGREGA project	R	0.408	0.645	0.327	0.667	0.873	0.910*	0.645	0.645	-0.152
	P	0.495	0.239	0.591	0.219	0.053	0.032	0.239	0.239	0.807

R: is the coefficient r by Pearson.
P: is Meaningfulness.

4.2.3 Bivaried correlation among the dimensions B and C

After contrasting the variables of the dimension "Usage of the School 2.0 program and its applications" with the variables of the dimension "Knowledge about School 2.0 program and its applications", we note that the following linear relationships between both exist.

Teachers who possess higher knowledge and usage of the whiteboard and the projector, make a greater continuous use of ICT (R= 0.884 and P= 0.047), whereas the teachers who know more digital contents (software) of their curriculum subject make more use of this content with their students (R= 0.971 and P= 0.006) and use more continuously ICT (R= 0.884 and P= 0.047) (see table 5).

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Table 5: Results of the bivaried correlations among "Knowledge about the School 2.0 program and its applications" and the "Usage of School 2.0 program and its applications"
Source: Own production.

			USAGE OF SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS						
			To which extent you have integrated ICT in your daily teaching practice	To which extent you use the whiteboard in your classes	Degree in which your students work individually from hardware devices	Degree in which your students work in groups from hardware devices	In which do you use Internet connection in your sessions?	Degree in which you use educational software with your students	Degree in which you use ICT continuously
KNOWLEDGE ABOUT SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS	To which extent you have known the usage of the whiteboard and the projector	R	<0.001	.[a]	-0.100	-0.100	0.756	0.416	0.884[*]
		P	1.000	.	0.873	0.873	0.139	0.486	0.047
	To which extent you know digital contents (software) of your curriculum subject	R	<0.001	.[a]	-0.300	-0.300	0.756	0.971[**]	0.884[*]
		P	1.000	.	0.624	0.624	0.139	0.006	0.047

R: is the coefficient r by Pearson.
P: is Meaningfulness.

4.2.4 Bivaried correlation among the dimensions B and D

When contrasting the variables belonging to the dimension "Usage of School 2.0 program and its applications" with the variables of the dimension "Compliance of the objectives of School 2.0 Program and of its adaptation to the students' characteristics", we observe the following relations.

Teachers using more the Internet connection in the classroom have the positive belief that the data processing and digital competence involve the development of an autonomous, efficient, responsible, critical and thoughtful person (R= 0.891 and P= 0.042) and further use ICT in a continuous way (R= 0.932 and P= 0.021).

Furthermore, teachers using more the educational software with their students believe that those adapt more to their needs (R= 0.930 and P= 0.022) (see Table 6).

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Table 6: Results of the bivaried correlations among "Compliance of the objectives of School 2.0 program and its applications" and the "Usage of School 2.0 program and its applications".
Source: Own production.

COMPLIANCE OF THE OBJECTIVES OF SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS

		The degree to which the School 2.0 program generates and facilitates access to educational digital materials adapted to the curricula and to the teachers, students and families	To which extent the data processing and digital competence involve the development of an autonomous, efficient, responsible, critical and thoughtful person	Degree in which educational software is adapted to the needs of their students	To which extent the School 2.0 program has encouraged the teachers participation in digital, free, reusable and standardized workgroups for the different areas of knowledge	Degree to which the School 2.0 program seeks quality and equity in the nineteenth century education
To which extent you have integrated ICT in your daily teaching practice	R	-0.244	-0.080	<0.001	0.756	0.293
	P	0.692	0.898	1.000	0.454	0.707
To which extent you use the whiteboard in your classes	R	.a	.a	.a	.a	.a
	P	.	.	.	.	.
Degree in which your students work individually from hardware devices	R	-0.592	-0.277	-0.447	0.327	-0.076
	P	0.293	0.651	0.450	0.788	0.924
Degree in which your students work in groups from hardware devices	R	-0.592	-0.277	-0.447	0.327	-0.076
	P	0.293	0.651	0.450	0.788	0.924
Degree in which you use Internet connection in your classes	R	0.799	0.891*	0.845	0.655	0.764
	P	0.105	0.042	0.071	0.546	0.236
Degree in which you use educational software with your students	R	0.234	0.538	0.930*	0.945	0.271
	P	0.704	0.349	0.022	0.212	0.729
Degree in which you use ICT continuously	R	0.448	0.932*	0.791	0.655	0.764
	P					

USAGE OF SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS

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4.2.5 Bivaried correlation among the dimensions B and E.

After contrasting the variables of the dimension "Usage of School 2.0 program and its applications" with the variables of the dimension "ICT Adaptation to the students' characteristics", we can appreciate how there are relationships among the variables. Teachers who makes a greater use of educational software with their students take into greater account the technological means in order to help to overcome the limitations that students with cognitive, sensory and motored deficits present ($R= 0.908$ and $P= 0.033$) (see Table 7).

Table 7: Results of the bivaried correlations among "ICT Adaptation to the students' characteristics" and the "Usage of School 2.0 program and its applications".
Source: Own production.

		ICT ADAPTATION TO THE STUDENTS' CHARACTERISTICS					
		To which extent you have specific technological means which are helpful and beneficial for subjects	To which extent the technological means that the center has to help to overcome the limitations that the cognitive. sensory and motored deficits of the subjects present	To which degree your equipments and technological programs have keyboards specific for students with visual impairment and for those with mobility impairments	To which extent the technological resources that the center possesses allow to increase the volume in order to overcome the hearing loss of certain students	To which extent the center has hardware and software adaptations for students with cognitive impairments	To which extent there is lack of Internet accessibility on the part of their students due to the poor adaptation of Webs sites
USAGE OF SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS	To which extent you have integrated ICT in your daily teaching practice — R	0.748	0.490	0.577	0.722	0.542	<0.001
	P	0.146	0.402	0.423	0.168	0.346	1.000
	To which extent you use the whiteboard in your classes — R	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ	.ᵃ
	P	.	.	.	.	.	.
	Degree in which your students work individually from hardware devices — R	0.471	0.121	<0.001	0.385	0.209	<0.001
	P	0.423	0.846	1.000	0.522	0.736	1.000
	Degree in which your students work in groups from hardware devices — R	0.471	0'.121	<0.001	0.385	0.209	<0.001
	P	0.423	0.846	1.000	0.522	0.736	1.000
	Degree in which you use Internet connection in your classes — R	0.134	0.504	0.302	0.327	0.276	<0.001
	P	0.830	0.386	0.698	0.591	0.653	1.000
	Degree in which you use educational software with your students — R	0.686	0.908[*]	0.688	0.747	0.839	-0.658
	P	0.201	0.033	0.312	0.147	0.076	0.228
	Degree in which you use ICT continuously — R	0.458	0.729	0.302	0.612	0.516	-0.280
	P	0.438	0.162	0.698	0.272	0.373	0.649

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4.2.6 Bivaried correlation among the dimensions C and D

After contrasting the variables of the dimension "Knowledge about School 2.0 program and its applications" with the variables of the dimension "Compliance of the objectives of School 2.0 program and its applications to the students' characteristics", we note that there are linear relationships between both. On the one hand, we observe how the teachers who have greater knowledge and use of the whiteboard and projector, believe that the data processing and digital competence involve the development of an autonomous, efficient, responsible, critical and thoughtful person (R= 0.971 and P= 0.006).

On the other hand, teachers who know digital contents (software) of their curriculum subject believe that they adapt more to the needs of their students (R= 0.894 and P= 0.041) (see Table 8).

Table 8: Results of the bivaried correlations among "Compliance of the objectives of School 2.0 program and its applications to the students' characteristics" and the "Knowledge about the School 2.0 program and its applications".
Source: Own production.

		COMPLIANCE OF THE OBJECTIVES OF SCHOOL 2.0 PROGRAM AND ITS APPLICATION TO THE STUDENTS' CHARACTERISTICS				
KNOWLEDGE ABOUT SCHOOL 2.0 PROGRAM AND ITS APPLICATIONS		The degree to which the School 2.0 program generates and facilitates access to educational digital materials adapted to the curricula and to the teachers. students and families	To which extent the data processing and digital competence involve the development of an autonomous. Efficient. Responsible. critical and thoughtful person	Degree in which educational software is adapted to the needs of their students	To which extent the School 2.0 program has encouraged the teachers participation in digital. Free. reusable and standardized workgroups for the different areas of knowledge	Degree to which the School 2.0 program seeks quality and equity in the nineteenth century education
To which extent you have known the usage of the whiteboard and the projector	R	0.423	0.971[**]	0.447	0.419	0.829
	P	0.478	0.006	0.450	0.725	0.171
To which extent you know digital contents (software) of your curriculum subject	R	0.254	0.693	0.894[*]	0.655	0.371
	P	0.681	0.194	0.041	0.546	0.629

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4.2.7 Bivaried correlation among the dimensions E and F

After contrasting the variables of the dimension "ICT Adaptation to the students' characteristics" and those of the dimension "Training, usage and knowledge", we can observe how there are relationships among them. The teachers with higher levels of training on the social network "Good Practices 2.0" highly have equipments and technological programs with keyboards specific for students with visual impairment and for those with mobility impairments (R= 1.000 and P= <0.001). Also, the teachers who makes more use of the social network "Good Practices 2.0" highly have equipments and technological programs with keyboards specific for students with visual impairment and for those with mobility impairments (R= 0.980 and P= 0.020).

On the one hand, teachers with higher levels of knowledge about the social network "Good Practices 2.0" also have more equipments and technological programs with keyboards specific for students with visual impairment and for those with mobility impairments (R= 1.000 and P= <0.001). On the other hand, we note how teachers with higher levels of training and knowledge about the educational resources of AGREGA project, have more equipments and technological programs with keyboards specific for students with visual impairment and for those with mobility impairments (R= 1.000 and P= <0.001) (see table 9).

Table 9: Results of the bivaried correlations among "School 2.0 program adaptation and its applications" and "Training, usage and knowledge about specific programs"
Source: Own production

ICT ADAPTATION TO THE STUDENTS' CHARACTERISTICS

			To which extent you have specific technological means which are helpful and beneficial for subjects	To which extent the technological means that the center has to help to overcome the limitations that the cognitive, sensory and motored deficits of the subjects present	To which degree your equipments and technological programs have keyboards specific for students with visual impairment and for those with mobility impairments	To which extent the technological resources that the center possesses allow to increase the volume in order to overcome the hearing loss of certain students	To which extent the center has hardware and software adaptations for students with cognitive impairments	To which extent there is lack of Internet accessibility on the part of their students due to the poor adaptation of Webs sites
TRAINING, USAGE AND KNOWLEDGE ABOUT SPECIFIC PROGRAMS	Level of training on the social network "Good Practices 2.0"	R	0.408	0.490	1.000**	0.444	0.542	<0.001

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		P	0.495	0.402	<0.001	0.453	0.346	1.000

<table>
<tr><td rowspan="18">TRAINING, USAGE AND KNOWLEDGE ABOUT SPECIFIC PROGRAMS</td></tr>
<tr><td></td><td>P</td><td>0.495</td><td>0.402</td><td><0.001</td><td>0.453</td><td>0.346</td><td>1.000</td></tr>
<tr><td rowspan="2">Level of usage of the social network "Good Practices 2.0"</td><td>R</td><td>0.401</td><td>0.433</td><td>0.980*</td><td>0.437</td><td>0.490</td><td>0.128</td></tr>
<tr><td>P</td><td>0.503</td><td>0.467</td><td>0.020</td><td>0.462</td><td>0.402</td><td>0.837</td></tr>
<tr><td rowspan="2">Level of knowledge of the social network "Good Practices 2.0"</td><td>R</td><td>0.408</td><td>0.490</td><td>1.000**</td><td>0.444</td><td>0.542</td><td><0.001</td></tr>
<tr><td>P</td><td>0.495</td><td>0.402</td><td><0.001</td><td>0.453</td><td>0.346</td><td>1.000</td></tr>
<tr><td rowspan="2">Level of training on the social network "Internet in the classroom"</td><td>R</td><td>0.292</td><td>0.336</td><td>0.911</td><td>0.365</td><td>0.350</td><td>0.346</td></tr>
<tr><td>P</td><td>0.633</td><td>0.580</td><td>0.089</td><td>0.546</td><td>0.564</td><td>0.568</td></tr>
<tr><td rowspan="2">Level of usage of the social network "Internet in the classroom"</td><td>R</td><td>0.252</td><td>0.240</td><td>0.802</td><td>0.323</td><td>0.254</td><td>0.482</td></tr>
<tr><td>P</td><td>0.683</td><td>0.697</td><td>0.198</td><td>0.596</td><td>0.680</td><td>0.411</td></tr>
<tr><td rowspan="2">Level of knowledge of the social network "Internet in the classroom"</td><td>R</td><td>0.176</td><td>0.271</td><td>0.832</td><td>0.287</td><td>0.233</td><td>0.471</td></tr>
<tr><td>P</td><td>0.777</td><td>0.659</td><td>0.168</td><td>0.640</td><td>0.706</td><td>0.423</td></tr>
<tr><td rowspan="2">Level of training on educational resources of the AGREGA project</td><td>R</td><td>0.408</td><td>0.490</td><td>1.000**</td><td>0.444</td><td>0.542</td><td><0.001</td></tr>
<tr><td>P</td><td>0.495</td><td>0.402</td><td><0.001</td><td>0.453</td><td>0.346</td><td>1.000</td></tr>
<tr><td rowspan="2">Level of knowledge of educational resources of the AGREGA project</td><td>R</td><td>0.375</td><td>0.343</td><td>0.905</td><td>0.408</td><td>0.405</td><td>0.280</td></tr>
<tr><td>P</td><td>0.534</td><td>0.572</td><td>0.095</td><td>0.495</td><td>0.498</td><td>0.649</td></tr>
<tr><td rowspan="2">Level of usage of educational resources of the AGREGA project</td><td>R</td><td>0.408</td><td>0.490</td><td>1.000**</td><td>0.444</td><td>0.542</td><td><0.001</td></tr>
<tr><td>P</td><td>0.495</td><td>0.402</td><td><0.001</td><td>0.453</td><td>0.346</td><td>1.000</td></tr>
</table>

R: is the coefficient r by Pearson.
P: is Meaningfulness.

4.2.8 Bivaried correlation in the dimension F.
4.2.8.1 Training and usage.
When contrasting the variables belonging to the dimension "Training, usage and knowledge about specific programs", at their level of training and usage about specific programs, we observe that there are the following linear relationships among them. The teachers having training on the social network "Good Practices 2.0" use this (R= 0.983 and P= 0.003) and the educational resources of AGREGA project (R= 0.919 and P= 0.028). Likewise, the teachers who have training on educational resources of AGREGA project use the latter

(R= 0.919 and P= 0.028) and the social network "Good Practices 2.0" (R= 0.938 and P= 0.003), whereas the teachers who are trained on the social network "Internet in the classroom" use the same (R= 0.979 and P= 0.004), the social network "Good Practices 2.0" (R= 0.970 and P= 0.006) and the educational resources of the AGREGA project (R= 0.980 and P= 0.003) (see table 10).

Table 10: Results of the bivaried correlations among "Usage level of specific programs" and "Training level of specific programs".
Source: Own production.

USAGE LEVEL OF SPECIFIC PROGRAMS

		"Good Practices 2.0" Program	"Internet in the classroom" Program	"AGREGA" Program
"Good Practices 2.0" Program	R	0.983**	0.836	0.919*
	P	0.003	0.077	0.028
"Internet in the classroom" Program	R	0.970**	0.979**	0.980**
	P	0.006	0.004	0.003
"AGREGA" Program	R	0.983**	0.836	0.919*
	P	0.003	0.077	0.028

(Column header: **TRAINING LEVEL OF SPECIFIC PROGRAMS**)

R: is the coefficient r by Pearson
P: is Meaningfulness

4.2.8.2 Training and knowledge.
By contrasting the variables belonging to the dimension "Training, usage and knowledge of specific programs", at their level of training and knowledge about specific programs, we note that the following linear relationships among them. On the one hand, the teachers having training on the social network "Good Practices 2.0" know this network (R= 1.000 and P= <0.001) and the educational resources of the AGREGA project (R= 1.000 and P= <0.001), as well as the teachers who have training on educational resources of the AGREGA project know these resources (R= 1.000 and P= <0.001) and the social network "Good Practices 2.0" (R= 1.000 and P= <0.001). On the other hand, the teachers who have training on the social network "Internet in the classroom" know that network (R= 0.978 and P= 0.004), the so-called "Goods Practices 2.0" (R= 0.926 and P= 0.024) and the educational resources of the AGREGA project (R= 0.926 and P= 0.024) (see table 11)

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Table 11: Results of the bivaried correlations among "Level of knowledge about specific programs" and the "Level of training on specific programs".
Source: Own production.

LEVEL OF KNOWLEDGE ABOUT SPECIFIC PROGRAMS

		"Good Practices 2.0" Program	"Internet in the classroom" Program	"AGREGA" Program
TRAINING LEVEL OF SPECIFIC PROGRAMS "Good Practices 2.0" Program	R	1.000**	0.861	1.000**
	P	<0.001	0.061	<0.001
"Internet in the classroom" Program	R	0.926*	0.978**	0.926*
	P	0.024	0.004	0.024
"AGREGA" Program	R	1.000**	0.861	1.000**
	P	<0.001	0.061	<0.001

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4.2.8.3 Knowledge and usage.

By contrasting the variables belonging to the dimension "Training, usage and knowledge about specific programs" at their level of knowledge and usage of specific programs, we observe that there are the following linear relationships among them. The teachers who are familiar with the social network "Good Practices 2.0" make use of it (R= 1.000 and P= <0.001) and of the educational resources of the AGREGA project (R= 1.000 and P= <0.001). In the same way, the teachers who know the educational resources of the AGREGA project make use of them (R= 1.000 and P= <0.001) and of the social network "Good Practices 2.0" (R= 1.000 and P= <0.001), whereas the teachers who know the social network "Internet in the classroom" use this network (R= 0.978 and P= 0.004), the social network "Good Practices 2.0" (R= 0.926 and P= 0.024) and the educational resources of AGREGA project (R= 0.926 and P= 0.024) (see table 12)

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Table 12: Results of the bivaried correlations among "Usage level of specific programs" and the "Level of knowledge about specific programs".
Source: Own production.

		USAGE LEVEL OF SPECIFIC PROGRAMS		
		"Good Practices 2.0" Program	"Internet in the classroom" Program	"AGREGA" Program
"Good Practices 2.0" Program	R	1.000[**]	0.861	1.000[**]
	P	<0.001	0.061	<0.001
"Internet in the classroom" Program	R	0.926[*]	0.978[**]	0.926[*]
	P	0.024	0.004	0.024
"AGREGA" Program	R	1.000[**]	0.861	1.000[**]
	P	<0.001	0.061	<0.001

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5. Discussion, conclusions and Prospective.

School 2.0 Program has come to our schools, teachers know it, the centers have received equipments, they have connection in the classrooms…, but its use is not yet completed (García-Valcarcel and Basilotta, 2012; Domingo and Marquis, 2013). We note how the teachers consider enough the extent to which they have integrated ICT into their daily teaching practice and how the students work individually and in groups with formats like hardware but, however, they do not use the whiteboards. On the contrary, we have been able to observe that they do believe that they have used enough Internet and software in their sessions with students.

These results coincide to a larger extent with the research which is being carried out by Area (2011) about the teachers' views on School 2.0 program. Up to the date, only an advance of the results has been published. However, Area, among these previous findings of the investigation, notes that most of the teachers recognize that School 2.0 program is causing the influx of technologies into the classroom (availability of computers for teachers and students, teaching and research staff and internet access). Despite this, the traditional learning materials (such as textbooks and whiteboards) are still the most used resources in the School 2.0 classrooms, despite the abundance of digital technology. More than 50% of the teachers say to use them everyday. However, only a quarter of the teachers indicate that they use computers and Internet everyday.

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It is important to highlight that the teachers participating in this research consider School 2.0 program to have hardly encouraged its participation in digital, free, reusable and standardized workgroups for the different areas of knowledge. This is another indicator that the program is not fully implemented in the centers; a result which could be contrasted with the aforementioned research, where only 49% of the teachers think that School 2.0 program facilitates the collaborative work among teachers.

The second question that we have intended to solve is to what degree or extent it has been implemented. Actually this question is answered with the above clarifications: the implementation has been achieved in technological equipment and start-up but the complete integration of ICT in schools has not been achieved. As Area well noticed in the third Congress School 2.0 held in Granada in October, 2011, "*the change and innovation is very slow and it is adapting to veteran practices*", ICT are used to search on the Internet, to do on-line exercises, to write in the word processor. Hence, we ask: where is the technological innovation?

As regard the third and fourth questions posed, -whether training for the teachers had been carried out and whether such training had been covered-, we check that the teachers generally consider to have quite training on methodological, educational and social aspects of ICT, but they believe that the initial training they have received for the School 2.0 program implementation and the continuous training of support and application of the program, has been scarce. They believe that they have received enough training on digital materials of specific educational character, that they taken online courses by the Ministry of Education on ICT and they think that they have taken enough in-person courses.

However, if we analyze the training they have about specific resources "Good Practices 2.0 Network, Agrega project, Internet in the classroom", we observe that it is little or none.

With these data we can conclude that despite the fact that the teachers consider to have ICT training, the implementation of School 2.0 program has shown the need to extend their training in this area. From our point of view and after having analysed the data provided by the scales, this training has not been covered in full, as the teachers themselves have felt poorly trained in certain aspects. Area (2011) finds similar results regarding the teachers' training, reflecting that 96% affirmed to need more training on the creation of materials, the software management, etc. We can not fail to mention that after the different correlations made among different research variables, we appreciate how the teachers with more training on and with ICT make more use of them in their teaching practice, so that their use is determined not only by training but also by knowledge. The vast majority of teachers consider the technological resources in schools to be enough to overcome certain limitations that students may possess. We believe that a sufficient at this point is equivalent to a failure, as it is something that all schools should have in order to provide the inclusion of all the students and in order to ensure the same education for everybody.

On the one hand, it is very interesting to see the correlation between the use of ICT and the media that the teachers have in the centers. The teachers who use more the educational software with their students have more technological means to help to overcome the limitations the students with cognitive, sensory deficits and motored deficits present. Likewise, the teachers having a higher level in specific programs have more resources to

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overcome these specific limitations. In this line we find that the correlations made among the dimensions C and D show that the teachers who have greater knowledge about the usage of the whiteboard and projector state that the data processing and digital competence will involve a better development of the person making it become an autonomous, efficient, responsible, critical and reflective person. On the other hand, the teachers who know digital contents (software) of their curriculum subject believe that these are adapted to the needs of their students.

These two statements and the rest of the conclusions make us think that the teachers who have more training on and knowledge about ICT make more usage of them and have a better understanding and vision of these technologies applied to education and classroom practice (Chavez-Barboza et al., 2017).

As regards the use of computers in class we observe that as well as in our research and in that by Area (2011), in most cases computers have been used for writing texts and taking class notes. They also used them to perform their homework, to create and make presentations, to search for information. As it has happened in our country they have been used for simple and routine practices. However, we make the same mistake: we do not innovate with ICT. With the implementation of them, we could create blogs, use social networking for educational purposes, to perform digital resources, wikis, etc.

We notice that almost all the programs aforementioned concluded that they had improved the students' works, they devoted more time to their tasks, they felt more engaged and motivated to their learning, they improved, in general, their marks, so as the usage of ICT produced benefits and improvements in their learning (Marín, 2017).

Both the results obtained in our research as those obtained in similar investigations (Area, 2011; García-Valcarcel and Basilotta, 2012; Domingo and Marqués, 2013; Gómez, 2015; Boza and Conde, 2016; Gómez-Gerdel, Guerrero and Leíva-Olivenza, 2017; Ordoñez, 2017) should serve to improve future programs and projects started to implement ICT in schools so as not to make the same mistakes in the future. Taking into account the ICT training of the teachers in all its aspects (educational, methodological, educational innovation, digital resources existing, etc.), perhaps it might be interesting training in this sense to begin in the Faculties of Education Sciences.

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